

Appln No. 10/675,222

Amdt date July 20, 2004

Reply to Office action of April 20, 2004

REMARKS/ARGUMENTS

The Office Action dated April 20, 2004, has been reviewed and the comments carefully considered.

In the Office action, various issues and questions are raised concerning the description of the variety. By the amendments in the accompanying Substitute Specification, Applicant has made a bona fide effort to address all issues and questions.

In view of the foregoing amendment and response, it is believed that the application is in condition for allowance and, accordingly, reconsideration and allowance is earnestly solicited.

If any questions remain regarding the allowability of the application, Applicant would appreciate if the Examiner would advise the undersigned by telephone.

The Commissioner is hereby authorized to charge any fees under 37 CFR 1.16 and 1.17 which may be required by this paper to Deposit Account No. 03-1728. Please show our docket number with any charge or credit to our Deposit Account.

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By Cynthia A. Bonner
Cynthia A. Bonner
Reg. No. 44,548
626/795-9900

CAB/tt

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TORENIA PLANT NAMED 'SUNRENILAPA'

BOTANICAL/COMMERCIAL CLASSIFICATION

Torenia hybrid/Torenia Plant

VARIETAL DENOMINATION

5 CV. 'Sunrenilapa'

BACKGROUND OF THE VARIETY

The present invention relates to a new and distinct variety of Torenia plant that was obtained from the artificial chromosome doubling of 'Sunrenirirepa' (Torenia hybrid),
10 obtained by colchicine solution treatment ("artificial doubling").

The Torenia is a very popular plant and is used for flower bedding and potting in the summer season. There are only a few varieties of the Torenia plant that have a semi-
15 erect growth habit, medium branching, and a great profusion of blooms.

Accordingly, this invention was aimed at obtaining a new variety having large globose form flowers, strong purplish-red with moderate purplish-pink petals without a yellow eye, a
20 semi-erect growth habit, medium ~~branching~~branching and a great profusion of blooms.

The new variety of the Torenia plant of this invention originated from the artificial doubling of 'Sunrenirirepa' that was previously filed in Japan and the United States of
25 America.

In September 1998, the cuttings of 'Sunrenirirepa' were treated with 0.1% colchicines solution, which were propagated by the use of cuttings on the peat at ~~the Omi R&D Center, SUNTORY FLOWERS Ltd., located at 863-1, Aza Iketani, Omi-~~
30 ~~cho,~~ Yokaichi, Shiga, Japan. After two months, some survived plantlets were transplanted in pots. In December 1998, colchiploids were obtained from the cultivation. The

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discovered Torenia plants were propagated by the use of cuttings and then grown in beds and pots on trial. The botanical characteristics of the plants were examined using the parent variety 'Sunrenirirepa' (U.S. Plant Pat. ~~Appln-Serial No. 10/066739~~ Number 14,302) and the similar variety 'Sunrenilabu' (U.S. Plant Pat. No. 10,843) for comparison. As a result, one plant was selected in view of flower size and color, and its growth habit, and it was concluded that the finally selected plant is distinguishable from any other variety whose existence is known to us and is uniform and stable in its characteristics. The new variety reproduces true to type in successive generations of asexual reproduction. The new variety has been named 'Sunrenilapa'.

In the following description the color-coding is in accordance with the R.H.S. colour chart of The Royal Horticultural Society, London, England.

The main botanical characteristics of the parent variety 'Sunrenirirepa' are as follows;

Plant:

Growth habit. - Semi-erect. The stems hang down pliantly when potted in a hanging pot.

Plant height. - Approximately 20 cm.

Plant extension. - Approximately 55 cm.

Growth. - Medium branching, a great profusion of blooms; the entire bush remaining in bloom for a considerable period of time.

Blooming period. - June to November in the southern Kanto area, Japan. The plant shape does not change throughout this period.

Stem:

Diameter. - Approximately 2.5 mm.

Anthocyanin pigmentation. - Present.

Branching. - Medium.

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Pubescence. - Sparse.

Length of internode. - Approximately 3.1 cm.

Leaf:

Phyllotaxis. - Opposite.

5 Shape of blade. - Lanceolate.

Length. - Approximately 2.9 cm.

Width. - Approximately 1.9 cm.

Depth of incision. - Medium.

Color.(upper side) - R.H.S. 137A (Moderate olive-green)

10 Pubescence of upper side. - Sparse.

Flower:

Facing direction. - Lateral.

Diameter. - Approximately 26 mm.

Height. - approximately 28 mm.

15 Color of floral tube. - R.H.S. 78A (Strong reddish-purple).

Color of petal. - Single color; R.H.S. 78A (Strong reddish- purple).

Yellow eye color. - Absent.

20 Calyx. - Approximately 1.5 cm in length;_.

Anthocyanin pigmentation of calyx limb. - Present.

Peduncle. - Approximately 1.7 mm in thickness; and
Approximately 2.2 cm in length.

Reproductive organs. - 1 pistil and 4 stamens.

25 Anther color. - White.

Flowering duration. - Medium.

30 Physiological and ecological characteristics: Medium
resistance to diseases and pests, high moderate tolerance to
heat and low tolerance to cold. The plant grows and has
flowers commonly when grown in the shade of trees.

The botanical characteristics of the comparison variety
'Sunrenilabu' is as follows:

Plant:

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Growth habit. - Semi-erect. The stems hang down pliantly when potted in a hanging pot.

Plant height. - Approximately 15.0 cm.

Plant extension. - Approximately 70 cm.

5 Growth. - Medium branching, a great profusion of blooms; the entire bush remaining in bloom for a considerable period of time.

10 Blooming period. - June to November in the southern Kanto area, Japan. The plant shape does not change throughout this period.

Stem:

Diameter. - Approximately 2.0 mm.

Anthocyanin pigmentation. - Present.

Branching. - Medium.

15 Pubescence. - Sparse.

Length of internode. - Approximately 6.0 cm.

Leaf:

Phyllotaxis. - Opposite.

Shape of blade. - Serrate.

20 Length. - Approximately 3.0 cm.

Width. - Approximately 2.5 cm.

Depth of incision. - Medium.

Color. (upper side) - R.H.S. 137A (Moderate olive-green)

Pubescence of upper side. - Sparse.

25 Flower:

Facing direction. - Lateral.

Diameter. - Approximately 35 mm.

Height. - approximately 25 mm.

Color of floral tube. - R.H.S. 85A (Light purple).

30 Color of petal. - Bi-color; upper petal: R.H.S. 85A (Light purple); Lower petal: R.H.S. 84A (Deep Purple); Right and left petals: R.H.S. 87A (Vivid purple)

Yellow eye color. - Absent.

Calyx. - Approximately 2.2 cm in length.

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Anthocyanin pigmentation of calyx limb. - Present.

Peduncle. - Approximately 2.5 mm in thickness; and
Approximately 2.5 cm in length.

Reproductive organs. - 1 pistil and 4 stamens.

5 Anther color. - White.

Flowering duration. - Medium.

Physiological and ecological characteristics: Medium
resistance to diseases and pests, high tolerance to heat and
low tolerance to cold. The plant grows and has flowers
10 commonly when grown in the shade of trees.

SUMMARY OF THE VARIETY

The new 'Sunrenilapa' plant has a semi-erect habit, large
globose form flowers having strong purplish-red with moderate
purplish- pink petals without a yellow eye. The new plant
15 displays medium branching and forms a great profusion of
blooms, and the entire bush remains in bloom for a
considerable period of time.

The new variety of the present invention has been
asexually reproduced by the use of cuttings at ~~the Omi R&D~~
20 ~~Center of SUNTORY FLOWERS LIMITED., located at 863-1, Aza-~~
~~Iketeni, Omori cho, Yokaichi shi, Shiga, Japan.~~ Such
propagation has confirmed that the characteristics are firmly
fixed and are reliably transmitted to subsequent generation.
The new variety reproduces true to type in successive
25 generations of asexual reproduction.

BRIEF DESCRIPTION OF THE DRAWING

FIG.1 is a photograph showing a partial view of the new
variety of torenia plant 'Sunrenilapa' planted in a flower
pot.;

30 FIG.2 is a photograph of flowers of the new variety of
torenia plant 'Sunrenilapa' and those of the comparable
variety 'Sunrenilabu'.

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DESCRIPTION OF THE VARIETY

The botanical characteristics of the new and distinct variety of the Torenia plant 'Sunrenilapa' are set forth hereafter. The plant was observed at the end of August while
5 growing at Yokaichi-shi, Shiga, Japan. Young plants were placed in a flower bedding at a spacing of 6 plants per square meter, and in pots with 3 plants being placed in each 30 cm pot. All plants described herein were observed after approximately three months of growth.

10 Plant:

Growth habit. - Semi-erect. The stems hang down pliantly when potted in a hanging pot.

Plant height. - Approximately 25 cm.

Spreading area of the plant. - approximately 40 cm.

15 Growth. - Medium branching, a great profusion of blooms; the entire bush remaining in bloom for a considerable period of time.

Blooming period. - June to November in the southern Kanto area, Japan. The plant shape does not change throughout
20 this period.

Stem:

Length. - Approximately 20 cm.

Diameter. - Approximately 2.2 mm.

~~Anthocyanin pigmentation. - Present. Light.~~

25 Color. - Near R.H.S. 144B

Branching. - Medium.

Pubescence. - Sparse.

Length of internode. - Approximately 5.5 cm.

Leaf:

30 Phyllotaxis. - Opposite.

Shape of blade. - Lanceolate.

Apex. - Obtuse.

Base. - Truncate.

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Length. - Approximately 3.5 cm.

Width. - Approximately 2.5 cm.

Margin. - Crenate.

Depth of incision. - Medium.

5 Color. (upper side) - R.H.S. 147A (Grayish olive green).
(Under side) - Near R.H.S. 138B

Pubescence of upper side. - Sparse.

Thickness of petiole. - Approximately 1.3 mm

Length of petiole. - Approximately 0.7 cm

10 Petiole color. - Near R.H.S. 144C

Flower:

Bud:

Shape. - ellipsoidal.

Length. - Approximately 1.6 cm.

15 Diameter. - Approximately 0.8 cm.

Color. - Near R.H.S. 143A

Floral diameter. - Approximately 1.0 cm.

Inflorescence peduncles. - Axillary.

Flower form. - Globose.

20 Flower depth (Height). - Approximately 3.7 cm.

Flower length. - Approximately 35 mm

Flower width. - Approximately 30 mm

Length of ~~tubular~~ Tube. - Approximately 45 mm

25 Color of floral tube. - (Outer surface) near R.H.S. 72A
(Strong reddish-purple.); (Inner surface) near R.H.S.
N78A; vertical lines on the inner surface of floral tube
- Near R.N.S. 79B

Petal:

Number. - 4.

30 Shape. - Elliptic.

Length. - Upper - approximately 1.0 cm; Side -
approximately 1.6 cm; Lower - approximately 1.0 cm.

Width. - Upper - approximately 2.1 cm; side -
approximately 0.7 cm; lower - approximately 1.9 cm.

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Apex shape. - Round.

Base shape. - Fused.

Margin. - Entire. Upper pedal is undulated.

Texture. - Smooth.

5 Color of petal. - upper surface - near R.H.S. 70A (Strong purplish-red.), lower surface - near R.H.S. N78A; margin - near R.H.S. N79B; R.H.S. 65A (Moderate purplish-red) at base of petal near throat.

Yellow petal blotches. - Absent.

10 ~~Vertical petal lines. - Present.~~

Upper bilabiate petal wave. -Strong.

Calyx:

Calyx shape. - Deeply 2-lobed.

Calyx Diameter. - Approximately 7.0 mm.

15 Color. - Outer surface - Near R.H.S. 143A; Inner surface - near R.H.S. 143A.

Degree of development of wings. - Medium.

Calyx length. - Approximately 17 mm

Anthocyanin pigmentation of calyx limb. - Absent.

20 ~~Anthocyanin pigmentation of anther. - Present. Medium.~~

Anther color. - Near R.H.S. N78C.

Anther spur. - Present.

Anther color. - White.

Peduncle thickness. - Approximately 2.0 mm

25 Peduncle color. - Near R.H.S. 144B

Peduncle length. - Approximately 1.5 mm

~~Cluster. - Absent.~~

Inflorescence Type. - Flower solitary, axillary and terminal.

30 ~~Number of flowers on each stem. - Few.~~

Number of flowers per stem. - Approximately 3.

Reproductive organs. - 1 pistil and 4 stamens.

Flowering duration. - Medium June to November in the southern Kanto area, Japan.

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Lastingness of bloom. - Approximately three days.

~~Physiological and ecological characteristics~~Resistance:

Displays Moderate resistance to powdery mildew and
significant resistance to spider mite diseases and pests, high
5 tolerance to heat when compared to other Torenia varieties ~~is~~
~~displayed, and the new variety has withstood temperatures as~~
~~low as 5°C.~~

The plant grows and has flowers commonly when grown in the
shade of trees.

10 Seeds. - Not observed.

Pedicel. - None.

This new 'Sunrenilapa' variety is particularly suitable
for growing in flower beds and pots, as well as hanging
baskets.

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I claim:

1. ~~The A~~ new and distinct Torenia plant, named
'Sunrenilapa', substantially as herein illustrated and
described, ~~having the following characteristics: (A) forms~~
5 ~~large globose flowers with strong purplish red with moderate~~
~~purplish pink petals, no yellow eye and a strong reddish-~~
~~purple floral tube, (B) exhibits a semi-erect growth habit,~~
~~(C) displays medium branching, and (D) forms flowers in great~~
~~profusion.~~

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ABSTRACT

5 Disclosed herein is a Torenia plant that displays large
globose flowers having strong purplish-red with moderate
purplish-pink petals without a yellow eye and a strong
reddish-purple floral tube. The plant has a semi-erect growth
habit and medium branching. A great profusion of blooms is
formed with the entire of plant for a considerable period of
time.